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THE GOVERNESS.

BY MRS S. C. HALL.

PART FIRST.

" OF course I head my advertisement thus :- 'Wanted -a governess," commenced Mrs Gresham; but before I permit her to read it, I ought to state that she had called upon her sister, Mrs Hylier, to consult concerning this important composition, to be sent that day to the Morning Post-Mrs Gresham and Mrs Hylier being both in want or resucce. See educate their children. A visiter was also there, a Mrs Ryal, confessedly the "most clever woman" the neighbourhood—an astonishing manager !—but although the ladies desired her advice, they were somewhat in dread of her sarcasm.

Mrs Gresham had again repeated " Wanted governess," when an old gentleman, a Mr Byfield, was announced. The trio of wives and mothers looked at each other, as well as to say, "What a bore !"-and then Mrs Hylier rose gracefully from her chaise longue, and, smiling sweetly, extended her hand, and welcomed Mr Byfield with exceeding warmth of manner; while Mrs Gresham and Mrs Ryal declared aloud their delight at being so fortunate as to meet a neighbour they had so seldom the pleasure to see.

The party thus assembled were all inhabitants of the bustling yet courtly suburb of Kensington; and Mr Byfield being a rich and influential, though a very eccentric man, was sure of being treated with the distinction which people of small means are too prone to bestow upon those whose means are more extensive.

"Do not let me interrupt you in the least, ladies," said the old man, quietly taking his seat near the window. "Mr Hylier promised I should look over these gems by daylight; and when you have talked your own talk, there will be time enough to talk mine."
The ladies, one and all, declared their conviction that
his "talk" must be more pleasant and instructive than theirs. He did not deny this, but smiled-shook his head-touched his hat (which he had laid down at his feet), as if to say he would either go or have his own And so Mrs Gresham recommenced reading wav. her advertisement-" Wanted-a governess. Any lady possessing a sound English education, a thorough knowledge of the theory and practice of instrumental and vocal music, and a perfect acquaintance with the French, Italian, and German languages; also with the rudiments of Latin."

Latin!" interrupted Mrs Ryal. "Latin! why, what do you want with Latin for a pack of girls ?'

"I thought," answered Mrs Gresham meekly, "that as there are but three girls, Teddy might do his lesns with them for a little while, and that would save the expense of a tutor."

"Oh, very good_very good," replied Mrs Ryal; "then add also, Greek; if the governess is any thing of a classic, you'll get both for the same money."

"Thank you, dear Mrs Ryal; how clever you are! G-r-, there are two 'ees' in Greek!—'also the rudis of Latin and Greek.' "

"I beg your pardon once more," said the provokingly clever lady;" "but put Greek and Latin, that is the " clever lady ;" correct way.'

" Greek and Latin, and the principles of drawingif her character will bear the strictest investigation, may hear of a highly respectable situation by applying to Z. P.

"Post paid," again suggested Mrs Ryal.
"Of course," continued Mrs Gresham; " lady will be treated as one of the family, a high salary will not be given."

"Well," said Mrs Ryal, "I think that will do.

You have not specified writing and arithmetic."
"English education includes that, does it not!"

"Why, yes; but you have said nothing about the

"The children are so young."

"But they grow older every day."
"Indeed that is true," observed pretty Mrs Hylier with a sigh, and a glance at the pier-glass. "My Ellen, though only ten, looks thirteen. I wish her papa would let her go to school; but one of his sisters im-bibed some odd philosophic notions at school, so that he wont hear of it, but talks about the necessity of putting female seminaries under the superintendence of government, and I really know not what."

I certainly," observed Mrs Ryal, " will not take a governess into my house again to reside—they are all exigeant. One was imprudent enough to wish to get married, and expected to come into the drawingroom when there was company of an evening. other would have a bedroom to herself, though, I am sure, no one could object to sleep in the same room with my own maid. Another-really the world is praved - occasioned a painful difference between Mr Ryal and myself; and let that be a warning to you, my dear friends, not to admit any pretty, et, sentimental young ladies into your de circles. Mr Ryal is a very charming man, and a good man; but men are but men after all, and can be managed by any one who will flatter them a little. Of course, he is a man of the highest honour; but there is no necessity for having a person in the house who plays or sings better than ones-self."

"Oh, my dear Mrs Ryal!" exclaimed both voices, "you need never fear comparison with any one." The jealous lady look pleased, but shook her head. "Well, at last I resolved to be my own governess-with the assistance of a young person, who comes daily for three, and sometimes I get four, hours out of her; and she is very reasonable—two guineas a-month, and dines with the children. She is not all I could wish; her manners are a little defective, for she is not exactly a lady; her father is a very respectable man, keeps that butter shop at the corner-I forgetoff Piccadilly—but I prefer it, my dear ladies, I pre-fer it—she does all the drudgery without grumbling. Your officers' and clergymen's daughters, and decayed gentlewomen, why, their high-toned manners-if they never speak a word—prevent one's being quite at ease with them, though they are, after all, only gover-

"But," suggested Mrs Gresham mildly, "lady-like

manners are so very necessary."
"Yes," answered Mrs Ryal, "so they are; for you

"And children so easily imbibe vulgar habits, that it is really necessary to have a lady with them."
"Well," said Mrs Ryal, with a sneer, "ladies are

plenty enough. I daresay you will have fifty answers. What salary do you mean to give?"

Mrs Gresham was a timid but kind-h ne who desired to do right, but had hardly courage to combat wrong. She was incapable of treating any thing unkindly, but she would be guilty of injustice if justice gave her much trouble; she hesitated, use she required a great deal, and intended to give very little.

"I cannot give more than five-and-twenty pounds a-year to any one," said Mrs Hylier in a decided tone. "My husband says we cannot afford to keep two men-servants and a governess; he wanted me to give the governess seventy, and discharge Thomas; but that was quite impossible; so I have made up my mind : there

are only two girls. No after claps, like my sister Gresham's little 'Teddy;' she can spend every evening in the drawing-room when we are by ourselves-have the keys of the piane and library-amuse herself with my embroidery—go to church in the carriage on Sunday
—and drive at least once a-week with the children in the Park. There !" added Mrs Hylier; " I am sure there are hundreds of accomplished women who would jump at such a situation if they knew of it.'

Washing included ?" inquired Mrs Ryal.

"No. I think she must pay her own washing, unless there was some great inducement."

"You allow no followers?"

"Oh, certainly not. What can a governess want of friends? Her pupils ought to have all her time." "God help her!" murmured the old gentleman. The

murmur was so indistinct that the ladies only looked at each other, and then Mrs Hylier said, "Did you speak, sir !" There was no answer; the conversation was resumed with a half whisper from one lady to another, that perhaps Mr Byfield was not deaf at all

"And what do you intend giving, Mrs Gresham?" questioned Mrs Ryal.

"I have three girls and a boy," she replied; "and I thought of forty."

"It will be impossible to prevent your governess from talking to mine, and then mine will get discon-tented; that is not fair, Fanny," observed her sister; "say five-and-thirty, allowing for the difference of

"And plenty, I call it," said Mrs Ryal. "What do they want but clothes? They never lay by for a rainy day. There are hundreds—yes, of well-born and well-bred ladies—who would be glad of such situations.

" I am sorry for it," said the old gentleman, rising and advancing to where the three Kensington wives were scated; "I am very sorry for it."

"Indeed, Mr Byfield! why, we shall have the better

"Forgive me, ladies, for saying so—but still more am I grieved at that. Permit me to read your adver-

Mrs Gresham coloured; Mrs Hylier had sufficient command over herself not to appear annoyed; but Mrs Ryal, the oracle of a clique, the "clever woman," who had, by the dint of self-esteem and effrontery, established a reputation of intellectual superiority over these who were either too indolent or too ignorant to question her authority, evinced her disple throwing herself back in her chair, loosening the tie of her bonnet, and dressing her lips in one of those super-cilious smiles that would mar the beauty of an angel.

"' Wanted, a governess,'" read the old gentleman, who frequently interrupted himself to make the following observations:—"'Any lady possessing a sound English education'—that in itself is no easy thing to attain—'a thorough knowledge of the theory and practice of vocal and instrumental music'—a thorough knowledge of the theory and practice of either the one or the other requires the labour of a man's life. my good ladies—'and a perfect acquaintance with the French, Italian, and German languages'—how very useless and absurd to found professorships of modern languages in our new colleges, when, in addition to the musical knowledge that would create a composer, a single person, a young female, can be found possessed of a 'perfect acquaintance' with French, Italian, and German! Oh, wonderful age! also, the rudiments of Greek and Latin-may of a highly respectable situation by applying to Z. P., post paid, Post-Office, Kensington.' Much as you

expect in the way of acquirements and accomplishments, ladies," continued the critic, still retaining fast hold of poor Mrs Gresham's composition, "you have not demanded a great deal on the score of religion or morality—neither are mentioned in your list of requisites."

"Oh?" exclaimed Mrs. Italian.

morality—neither are mentioned in your list of requisites."

"Oh?" exclaimed Mrs Hylier, "they are taken for granted. No one would think of engaging a governess that was not moral and all that sort of thing, which are always matters of course."

"To be sure they are," added Mrs Ryal, in that peremptory tone which seemed to say, Do you dare to question my opinion? "To be sure they are trevery one knows that nothing can be more determined with respect to religion and morality than my practice with my children. Rain, hail, or sunshine, well or ill, the governess must be in the house before the clock strikes nine. Pealms read the first thing; and if they have not got well through the French verbs, a chapter besides for pussishment; catechism, Wednesdays and Fridays; and the collect, epistle, and gospel, by heart, every Sunday after church. I always do two things at once, when I can, and this strengthens their memory, and teaches them religion at the same time. I never questioned my governess as to religion; it looks narrow-minded; and yet wine never dreams of objecting to what I desire."

"I should think not," was Mr Byfield's quiet rejoinder; "strange ideas your children will entertain of the religion that is rendered a punishment instead of a reward."

Mrs Ryal grasped the tassel of her muff, but made no reply.

"Oh," he continued, "here is the pith in a post-

Mrs Ryal grasped the tassel of her muff, but made no reply.

"Oh," he continued, "here is the pith in a postscript—'As the lady will be treated as one of the family, a high salary will not be given.' Ladies!" exclaimed the old man, "do you not blush at this?
You ask for the fruits of an education that, if it be
half what you demand, must have cost the governess
the labour of a life, and her friends many hundred
pounds. It is your DUTY to treat the person who is
capable of bestowing upon your children the greatest
of earthly blessings as one of your family; and yet you
make the doing so a reason for abridging a stipend,
which, if stretched to the utmost of what governesses
receive, pays a wretched interest for both time and
money. Shame, ladies, shame!"

The ladies looked at each other, and at last Mrs
Hylier said, "Really, sir, I do not see it at all in the
light in which you put it. I know numberless instances where they are glad to come for less."

Tears came into Mrs Gresham's eyes, and Mrs Ryal
kicked the ottoman violently.

"The man's the nity" continued Mr. Byfield.

Tears came into Mrs Gresham's eyes, and Mrs Ryal kicked the ottoman violently.

"The more's the pity," continued Mr Byfield;
but I hold it to be a principle of English honesty to pay for value received, and of English honour not to take advantage of distress."

"Suppose we cannot afford it, sir—am I to do without a governess for my children because my husband cannot reach the court agreement to the sixty or exercity requires a war."

out a governess for my children because my husband cannot pay to one sixty or seventy pounds a-year?"

"But you said just now, madam, that Mr Hylier wished you to pay that sum."

"Yes," stammered the fair economist, "if—if"—

"If you could manage with one footman," said the old gentleman, "instead of two. In my young days, my wife, who had but one child, and we were poor, said to me—'Joseph, our girl is growing up without education, and I cannot teach, for I never learned, but we must send her to school.' I answered that we could not afford it. 'Oh, yes, we can,' she said; 'I will discharge our servant; I will curtail our expenses in every way, because I am resolved that she shall be well educated, and honestly paid for.' It never occurred to that right-minded yet simple-hearted woman to propose lower terms to a governess, but she proposed less

in every way, because I am resolved that she shall be well educated, and honestly paid for.' It never occurred to that right-minded yet simple-hearted woman to propose lower terms to a governess, but she proposed less indulgence to herself. Thus she rendered justice. She would have worked her fingers to the bone sooner than have bargained for intellect. Ay, Mrs Ryal, you may laugh; but of all meannesses, the meanest is that which depreciates mind, and having no power but that which proceeds from a full purse, insuits the indigence which has more of the immaterial world beneath its russet gown than your wealth can purchase."

"My wealth!" exclaimed the offended lady; "your wealth, if you please; but though your wealth, and your oddity, and your altogether, may awe some people, it can have no effect upon me, Mr Byfield—none in the world; every one says you are a strange creature."

"My dear Mrs Ryal," said Mrs Hylier, "you positively must not grow angry with our dear friend, Mr Byfield; the does not mean half what he says."

"I beg your pardon," interrupted the eccentric old gentleman; "I mean a great deal more. I only wish I had the means of sending forth to the world my opinion as to the inestimable value of domestic education for females. I would have every woman educated within the sanctuary of her own home. I would not loosen the smallest fibre of the affection which binds her to her father's house; it should be at once her altar and her throse; but as it is a blessing which circumstances prevent many from enjoying, I would command the legislature of this mighty country to device some means for the better ordering and investigation of 'ladies' boarding-schools.' To set up an establishment for young ladies is very often the last resource for characterless women, and persons who, failing in every thing clae, resort to that as a means of subsistence; whereas such should be under the cleesets superintendence of high-minded and right-thinking gentiewomen. I look upon the blue behaved and brass-plated echools than

"not to mind; that Mr Byfield was half mad on the subject of schools."

"Ladies," said the old man, apparently recovered from his agitation, and in his usually quiet, calm, yet harshlytoned voice; 'ladies, you are, in different degrees, all women of the world; you live with it, and for it, and you men of the world; you live with it, and for it, and you here of the world; you five with it, and for it, and you here mother's beauty, and you, Mrs Byal, stand in open defiance of vulgar contagion, because you fear a rivel in a well-bred governess, and get more time out of your daily labourer than you would expect from your milliner, for the same money; and you, Mrs Gresham—but I can-not say to you more than that you all love your children—nome more, some less. Still, according to your natures, you all love them death? So did I mine. My child was all the world to me. I told, you what her poor mother though we had the longing to secure for her every advantage, we had no skill as to the means of obtaining the knowledge we so desired her to possess. We placed her at a 'first-rate school,' as it was called, and thought we had done our duty; but this going from her home loosened the cords of love that bound her to us. And when a sudden stroke of good fortune converted a poor into a rich man, and we brought our child to a splendid hones, we found that our danghter's morals had become the most difficult of all for a governess to the most difficult of all for a governess to the most difficult of all for a governess to the most difficult of all for a governess to the most difficult of all for a governess to the most difficult of all for a governess to make the could not proceed; and anary as the ladies had been with him a few moments before for a plain-speaking which amounted to rudeness, they could not avoid sympathising with his feelings.

"But we are not going to seed our children to a school," suggested Mrs Greaham.

"I know that, madam," he replied; "but when I would have going the school, and the poor to the could not go

words about it; I have not been so long your opposite neighbour without knowing that your last governess did not sit at your table; that when you had the hot, she had the cold; that when a visiter came, she went; that she was treated as a creature belonging to an intermediate state of society, which has never been defined or illustrated—being too high for the kitchen, too low for the parlour; that she was to govern her temper towards her; that she was to cultivate intellect, yet sit silent as a fool; that she was to cultivate intellect, yet sit silent as a fool; that she was to cultivate intellect, yet sit silent as a fool; that she was to instruct in all accomplishments, which she must know and feel, yet never play any thing in society except quadrilles, because she played so well that she might celipse the young ladies who, not being governesses, play for husbands, while she only plays for bread! My good madam, I know almost every governess who enters Kensington by sight; the daily ones by their early hours, cotton umbrellas, and the cowed, dejected in with which they raise the knocker, uncertain how to let it fall. Do I not know the musical ones by the wornout boa doubled round their throats, and the roll of new music clasped in the thinly gloved hand?—and the drawing ones—God help them—by the small portfolio, pallid checks, and haggard eyes? I could tell you tales of those hard-labouring classes that would make factory labour seem a toy; but you would not understand me, though you can understand that I, Joseph Byfield, hope you will take one of my recommending."

The sisters looked at each other, as well as to say, "What shall we do?"

Mrs Hylier assumed a cheerful, careless air, and replied—"Well, sir, who is your governess?"

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Mrs Hylier assumed a cheerful, careless air, and replied—"Well, sir, who is your governess?"

"Who she exactly is, Mrs Hylier, I will not tell you; and she does not know, though she imagines she does, what she is. I will tell you. She is handsome, without he consciousness of beauty—accomplished, without affectation—gentle, without being inanimate—and I should suppose patient; for she has been a teacher in a school, as well as in what is called a private family; but I want to see her patience tested."

"Is she a good musician?"

"Better than most women."

"And a good artist?"

"That was not in the bond; but she does confound perspective, and distort the human body as perfectly as most teachers of 'the art that can immortalise'."

"My dear sir"——

" My dear sir" "My dear sir"—

"Ay, ay; half a dozen chalk heads—a few tawdry
landscapes, with the lights scratched out, and the
shadows rubbed in—a bunch of flowers on velvet, and a
bundle of handscreens"—

"My dear sir," interrupted Mrs Hylier, "these sort of
things would not suit my daughters; what they do must
be artistic."

things would not suit in a magain.

"Then get an artist to teach them; you go upon the principle of expecting Herts to paint like Eastlake, and Eastlake to play like Hertz. Madam, she is a well-informed, prudent, intelligent gentlewoman; feeling and understanding well; consequently doing nothing ill, because she will not attempt what she cannot accomplish. She will not undertake to finish (that's the term, I think) pupils in either music or drawing, but she will do her best; and as she has resided abroad, I am told (for I hate every language except my own) she is a good linguist; and I will answer for her accepting the five-and-twenty pounds a-year."

and I will answer for her accepting the five-and-twenty pounds a-year."

"Very desirable, no doubt," muttered Mrs Hylier, un-willing, for sundry reasons of great import connected with her husband, to displease Mr Byfield, and yet most unwilling to receive into her family a person whom, judging of others by herself, she imagined must be a spy upon her message.

"I knew you would so consider any one I recommended," said the old gentleman with a smile, that evinced the consciousness of power; "and when shall the 'young person' (that is the phrase, is it not?)—when shall she come?"

'young person (close of the shadow of the sh

"I think I should like to see her first," answered the lady, hesitating.
"Very good; but to what purpose? you know you will take her?"
"Any thing to oblige you, my dear sir; but has she no female friend?"

take her?"

"Any thing to oblige you, my dear sir; but has she no female friend?"

"Some one of you ladies said a few moments ago that a governess had no need of friends."

"You are aware, Mr Byfield, it is usual upon such occasions to consult the lady the governess resided with last; it is usual; I do not want to insist upon it, because I am sure you understand exactly what I require."

"Indeed, madam, I do not pretend to such extensive information; I know, I think, what you ought to require, that is all. However, if you wish, you shall have references besides mine." and Mr Byfield looked harder and stiffer than ever. He walked up to a small water-colour drawing that hung above a little table, and contemplated it, twirling his cane about in a half circle all the time. The subject was ugly enough to look at—a long chimney emitting a column of dense smoke like a steamer, and a slated building stuck on one side, being a view of the "Achilles saw mills," which Mr Hylier had lately purchased, a considerable portion of the purchase-money having been advanced by Mr Byfield.

"No matter how odd, how rude, how incomprehensible our old neighbour is, Caroline," Mr Hylier had said to his wife only that morning; "no matter what he does, or says, or fancies; if you contradict or annoy him, it will be my ruin."

Her husband's words were forcibly recalled to her by the attitude and look of the old gentleman, and she answered.—"Oh, dear no, sir, not at all; one cannot help anxiety on such a subject; and I must only endeavour to make the lady comfortable, and all that sort of thing, although I fear she may complain to you of".—

"No, no, madam," he interrupted; "I do not desire her to be treated in any way better than your former governess; I wish to see how she bears the rubs of life; I particularly request that no change whatever be made in her favour; if I wished her to be quiet and comfortable, I

should have sent her to my gentle little friend Mrs Gres-

ham."

Mrs Hylier bit her lip. "Good morning, ladies; when shall Miss Dawson—her name is Emily Dawson—when shall she come?"

"When you please, sir."

"To-morrow, then, at twelve."
He shut the door; Mrs Gresham rang the bell; and Mrs Hylier, in a weak fit of uncontrollable vexation, burst into tesses.

into tears.
"Did you ever know such a savage?" exclaimed Mrs

into tears.

"Did you ever know such a savage?" exclaimed Mrs Gresham.

"I am sure you have no reason to complain—if it was not for the hold he has over Hylier"—— "I wonder if she is any relation of his?" said Mrs Gresham, who was a little given to romance.

"Not she, indeed; he is as proud as Lucifer, and has money enough to enable him to live in a palace."

"Could it be possible that he intends to marry," suggested Mrs Gresham.

"Marry, indeed; would any man that could prevent it, permit the woman he intended to marry to be a governess? No. I'll trouble my head no more about it; let her come; one is pretty much the same as another; the only thing that really gives me pain is, that Mrs Ryal should have heard so much of it; she's a regular bell-woman; likes to have the earliest information of whatever goes on in the world, so as to be the first to set it going. She was the means of the dismissal of five governesses only last winter, and there is no end to the matches of her breaking. She will declare the girl is—God knows what—if she finds all out."

"Well," said Mrs Gresham, musingly, "after all, it is very odd; only fancy Mr Byfield taking an interest in a governess at all. Still, I must insert my advertisement, and I think I might substitute dancing for Greek; they are about equally useful, and one must not be too unreasonable."

"Very considerate and good of you, Fanny," said her sister; "but believe me, the more you require the more you will set a mall them.

reasonable."

"Very considerate and good of you, Fanny," said her sister; "but believe me, the more you require the more you will get; and I am not sure that Mrs Ryal was wrong about the sciences; every day something fresh starts up that no one ever heard of before, and one must be able to talk about it; it is really very fatiguing to keep up with all the new things, and somehow I do not think the credit one gets by the knowledge is half enough to repay one for the labour."

"Mr Gresham says the whole."

"Mr Gresham says the whole system, or, as he calls it, no system, of female education is wrong."

"Mr Gresham says the whole system, or, as he calls it, no system, of female education is wrong."

"My dear Fanny, how absurd you are! What can men possibly know of female education? There is my husband, a worthy man as ever lived, and yet he will tell you that the whole object of female education should be to make women—now only imagine what?"

"I am sure I do not know."

"Why, good wives and mothers."

"I am sure I do not know."

"Why, good wives and mothers."

Both Indies laughed, and then Mrs Hylier exclaimed,

to think of my taking any one into my house under such
eircumstances! But at all events, I must prepare the
children for their new governess."

POPULAR INFORMATION ON SCIENCE.

INFLUENCE OF COLOUR ON HEAT AND ODOUR.

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INFLUENCE OF COLOUR ON HEAT AND ODOUR.

THE comparative susceptibility of heat shown by bodies coloured in a certain manner, has been familiar to the scientific world since the days of Franklin, who made some ingenious experiments to ascertain the point, by marking the effect of sunshine upon various patches of snow covered by pieces of cloth variously coloured. Sir Humphry Davy also experimented on this subject; but the inquiry was never followed out to definite results, until it fell into the hands of Dr James Stark of Edinburgh. The experiments made by this gentleman, as detailed by him in a paper communicated in 1833 to the Hoyal Society, are of a remarkably interesting as well as satisfactory nature.

Dr Stark wrapped the bottom of a thermometer in black wool, and sunk it in a glass tube, which he then immersed in water heated to 170 degrees Fahrenheit. He repeated the experiment successively with dark green, scarlet, and white wool, the object being to see with what comparative rapidity the heat of the water would affect the thermometer through the various kinds of wool. The thermometer attained to an equality with the heat of the water in considerably different spaces of time: in the case of the black wool in 4½ minutes, and the white in 8 minutes—the advance towards the highest point being in each case, as might be expected, gradual and proportionate. In some other experiments, varied as to the mode and the substances used, similar results were obtained—the susceptibility being always greatest in the black, flext less in the green, next less in the scarlet, and least of all in the white. These results were obtained—the susceptibility being always greatest in the black, flext less in the green, next less in the scarlet, and least of all in the white. These results were obtained—the susceptibility being always greatest in the black, deep blue, lighter blue, green, purple, red, yellow, which, a body which absorbs heat readily, will be warm while the heat continues to operat

On this point Count Rumford made experiments which settled the question in the affirmative; or, what is the same thing, he ascertained "that those substances which part with heat with the greatest facility or celerity, are those which acquire it most readily, or with the greatest celerity." Dr. Stark was curious to learn if this doctrine held good with those variously coloured bodies, which he had ascertained to be absorptive in proportion to the intensity of their colours. Reversing the former experiments, he found black wool fall from 180 to 50 degrees Fahrenheit in 21 minutes, red wool in 26, and white in 27 minutes. He coloured wheat flour, and found black descend through the same range in 9 ½ minutes, brown in 11, yellow in 12, and white in 124 minutes. The same results were found with the ball of an air-thermometer variously coloured; so that he considered himself as having demonstrated that "differently coloured substances possess a specific influence on the absorption of heat or calorie, both luminous and non-luminous; and that they give off their caloric in the same ratio as they absorb it."

Dr Stark's remarks on this conclusion are of great value. "The descent afternance of the same ratio as they also th

they give off their caloric in the same ratio as they absorb it."

Dr Stark's remarks on this conclusion are of great value. "The demonstration," he says, "of the influence of colour on the absorption and radiation of caloric, may tend to open up new views of the economy of nature, and perhaps suggest useful improvements in the management and adaptation of heat. Dr Franklin, who never lost sight of practical utility in his scientific investigations, from the result of his experiments with coloured cloths on the absorption of heat, drew the conclusion, 'that black clothes are not so fit to wear in a hot sunny climate or season as white ones, because in such clothes the body is more heated by the sun when we walk abroad, and is at the same time heated by the exercise; which double heat is apt to bring on putrid dangerous fevers;' that soldiers and scamen in tropical climates should have a white uniform; that white hats should be generally worn in summer; and that garden walls for fruit-trees would absorb more heat from being blackened.

Count Rumford and Sir Everard Home, on the contrary, come to a conclusion entirely the reverse of this. The count asserts, that if he were called upon

form; that white hats should be generally worn in summer; and that garden walls for fruit-trees would absorb more heat from being blackened.

Count Rumford and Sir Everard Home, on the contrary, come to a conclusion entirely the reverse of this. The count asserts, that if he were called upon to live in a very warm climate, he would blacken his skin or wear a black shirt; and Sir Everard, from direct experiments on himself and on a negro's skin, lays it down as evident, 'that the power of the sun's rays to soorch the skins of animals is destroyed when applied to a dark surface, although the absolute heat, in consequence of the absorption of the rays, is greater.' Sir Humphry Davy explains this fact by saying, 'that the radiant heat in the sun's rays is converted into sensible-heat.' With all deference to the opinion of this great man, it by no means explains why the surface of the skin was kept comparatively cool. From the result of the experiments detailed, it is evident, that if a black surface absorbs caloric in greatest quantity, it also gives it out in the same proportion; and thus a circulation of heat is, as it were, established, calculated to promote the insensible perspiration, and to keep the body cool. This view is confirmed by the observed fact of the stronger odour exhaled by the bodies of black people.

The different shades of colour by which races of men inhabiting different climates are distinguished, equally possess, there is reason to believe, the quality of modifying the individual temperature, and keeping it at the proper mean. This adaptation of colour may perhaps be traced in the inhabitants of every degree of latitude, and be found to correspond with the causes which limit the range of plants and animals. The effect of exposure to the sun in our own country in warm seasons, is temporarily to change the colour of the parts submitted to its influence, and to render them less susceptible of injury from the heating rays.

The influence of colour as modifying the effects of heat, is also striki

migan is a familiar example. Mr Selby rema-that 'the black deep ochreous yellow plumage of ptarmigan in spring and summer gradually gives p-to a greyish white; the black spots become bro-and assume the appearance of sig-rag lines and spe These, again, as the season advances, give place to pure immaculate plumage which distinguishes l-sexes in winter.'

pure immaculate plumage which distinguishes both sexes in winter.'

The display of colours in the plumage of the birds of tropical climates is also in strict accordance with the observed facts of the influence of colour over the absorption and radiation of heat. The metallic reflections and polished surface of the whole family of humming-birds are admirably suited to their habits; and the colours of the wings of the Lepidoptera, in the class of insects, there is little doubt, serve some similar purpose, in maintaining the temperature of the animals at the proper mean. In proportion to the diminution of temperature and the distance from the equator, a corresponding dilution of colour in animals takes place, till in temperate countries it is almost uniformly of a sober grey. In the arctic regions, all colour except white and black disappears—modifications of which, with very little variety of other colours, form the summer and winter clothing of most of the northern tribes of birds.

In the vegetable kingdom, I am disposed to believe that the

summer and watter cooting or most of the normers tribes of birds.

In the vegetable kingdom, I am disposed to believe that the colours of the petals of flowers serve some useful purpose in regard to preserving the temperature of the parts necessary for reproduction at the proper mean, and that the varied pencilling of nature has thus an object beyond merely pleasing the eye. In this view, the quality of colour, so widely extended, and so varied and blended in every class of natural bodies, acquires a further interest in addition to its ministering to the pleasures of sight, and affords a new instance of that benevolence and wisdom by which all the arrangements of matter are calculated to excite and gratify the mind directed to their investigation.

all the arrangements of matter are calculated to excite and gratify the mind directed to their investigation.

Even in the inorganic portion of nature, and in northern climates, the portion of heat imbibed by the soil during a short summer, is prevented from escaping by the covering of snow which falls in the beginning of winter; and thus the temperature necessary for the scanty vegetation is kept up. By this white covering, vegetables are enabled to sustain a lengthened torpidity, without suffering from the injurious effects of frost; and the ground is preserved from partial alternations of temperature, till the influence of the sun at once converts the northern winter into summer, without the intervention of spring."

In his investigations of the effect of colours in causing bodies to be more susceptible of odours, Dr Stark had much less aid from the inquiries of preceding philosophers. His attention being drawn to the subject by accident, he began a course of experiments, by putting a small quantity of black wool (ten grains), and an equal of white wool, into a close vessel beside some camphor—also similar quantities of each into a close drawer beside assafectida—and found in both cases that the black had palpably become the most odorous. He repeated the experiment with cotton wool, and found the same result. Other experiments, in which red was introduced, gave to it, as far as the ordinary sense, could judge, a medium degree of odorousness. Afterwards, he experimented with a variety of colours, and found the degrees of odorousness to be in the following order—black, blue, red, green, yellow, and white, which is nearly the order in Franklin's experiments respecting the heat-absorbing powers of bodies. He then tried black and white wool against black and white cotton, and found the black wool more odorous than the black cotton, and the white wool than the white cotton. It is to be observed, that he called in the senses of many persons to test the degrees of odorousness in all these experiments; yet, as no exa white cotton. It is to be observed, that he called in the senses of many persons to test the degrees of odorousness in all these experiments; yet, as no exact knowledge could be thus attained, he became "desirous that, if possible, at least one experiment should be devised, which would show, by the evidence of actual increase of weight, that one colour invariably attracted more of any odorous substance than another." "Upon considering," he adds, "the various odorous substances which could be easily volatilised without change, and whose odour was inseparable from the substance, I fixed upon camphor as the one best suited to my purpose. In an experiment of this nature, it was necessary that the camphor should be volatilised or converted into vapour, and that the coloured substances should be so placed as to come in contact with the camphor while in that state. It was therefore of the first importance to prevent currents of air within the vessel in which the experiment was conducted; and with this view I used a funnel-shaped vessel of tin plate, open at the top and bottom. This rested on a plate of sheet iron, in the centre of which the camphor to be volatilised was placed. The coloured substances, after being accurately weighed, were supported on a bent wire, and introduced through the upper aperture. This was then covered over with a plate of glass. Heat was now applied gently to volatilise the camphor; and when the heat was withdrawn and the apparatus cool, the coloured substances were again accurately weighed, and the difference in weight noted down."

Proceeding in this manner, Dr Stark went over all

noted down."

Proceeding in this manner, Dr Stark went over all his former experiments, and invariably found an increase of weight, to a small but scientifically appreciable extent, in proportion to the depth of colour, and more in evol than in cotton, and more in silk than either.

^{*} To speak precisely, Davy omits the lighter blue and purple

^{*} Philosophical Transactions, 1804, p. 95.

Of the select experiments which he details, we cannot give even a selection; but, by way of specimen, we may mention that he found white, red, and black wool increased in weight respectively γ_0 , γ_0 , and $1\gamma_0$ grains, and white cotton increased $2\gamma_0$, white wool $2\gamma_0$, and white silk $3\gamma_0$ grains. "The general conclusion would appear to be, that animal substances have a greater attraction for odours than vegetable matters; and that all these have their power much increased by their greater darkness or intensity of colour. These experiments seem also to establish, that the absorption of odours by coloured substances is regulated by the same law which governs the absorption of light and heat. The analogy goes still further; for in other experiments made with a view to ascertain this point, I invariably found that the power of colour in radiating or giving out odours, was in strict relation to Of the select experiments which he details, we can

and heat. The analogy goes still further; for in other experiments made with a view to ascertain this point, I invariably found that the power of colour in radiating or giving out odours, was in strict relation to the radiation of heat in similar circumstances." Dr Stark also experimented on this point with equally satisfactory results. For example, he "took pieces of card, coloured, as before, black, dark-blue, brown, orange-red, and white, and after having exposed them to the vapour of camphor, in the usual manner, they were taken out of the vessel, weighed, and left in the apartment for twenty-four hours. Upon carefully re-weighing the cards at the end of this period, it was found that the black had lost one grain; the blue nearly as much; the brown rights of a grain. In about six hours after this, the black and blue had completely lost their camphor; the brown and red had the merest trace, inappreciable to a delicate balance; while the white still retained about right of a grain."

It will readily occur to many minds, that these experiments afford grounds for some practical procedure with respect to the noxious emanations producing infection. It must appear likely that a white dress of cotton is the one in which a person could most safely go into an infected place. In fact, the Turkish quarantine regulations proceed upon this assumption in part, woollen clothes being held by them as in a higher degree dangerous than those composed of cotton. Dr Stark thinks it not unlikely that, amongst the measures taken to avert cholera in this country, the white-washing of houses was the most efficacious. Fumigations, he remarks, could only have a temporary influence; but "white-washing, although it had no specific effect on the contagious effluvium, yet, by constantly presenting a reflecting surface, prevented the absorption of the emanations by the walls, and thus tended, with moderate ventilation, to keep the air of the contrary, would readily, as has been demonstrated absorb reviews edeuver and as a scorn as the thus tended, with moderate ventilation, to keep the air of the apartments pure. Dirty dark-coloured walls, on the contrary, would readily, as has been demonstrated, absorb noxious odours, and, as soon as the effect of fumigation was over, gradually give them out

Next, therefore," he adds, "to keeping the walls of hospitals, prisons, or apartments occupied by a number of individuals, of a white colour, I should suggest that the bedsteads, tables, and seats, should be painted white, and that the dress of the nurses and hospital-attendants should be of a light colour.

and hospital-attendants should be of a light colour. A regulation of this kind would possess the double advantage of enabling cleanliness to be enforced, at the same time that it presented the least absorbent surface to the emanations of disease.

On the same principle, it would appear that physicians and others, by dressing in black, have unluckily chosen the colour of all others most absorbent of odorous exhalations, and of course the most dangerous to themselves and patients. Facts have been mentioned which make it next to certain that containing the same of the same property of the same mentioned which make it next to certain that conta-gious disease may be communicated to a third person through the medium of one who has been exposed to contagion, but himself not affected; and, indeed, the circumstance of infectious effluvia being capable of being carried by medical men from one patient to another, I should conceive one of the means by which such diseases are often propagated, in the ill-ventilated and dirty habitations of the poor exposed to their in-fluence."

VALUE OF STATISTICAL REGISTERS.

Value of statistical registers.

A faithful register of births, marriages, and deaths, is wished for by enlightened philanthropists of all advanced countries, far more as a test of national morals and the national welfare, than as a matter of the highest social convenience. For this the physiologist waits as the means of determining the physical condition of the nation; as a guide to him in suggesting and prescribing the methods by which the national health may be improved, and the average of life prolonged. For this the legislator waits as the means of determining the comparative proneness of the people to certain kinds of social offences, and the causes of that proneness; that the law may be framed so as to include (as all wise laws should include) the largest preventive influence with the greatest certainty of retribution. For this the philanthropist waits, as a guide to him in forming his scheme of universal education; and without this—without knowing how many need education altogether—how many under one set of circumstances, and how many under another—he can proceed only in darkness, or amidst the delusions of false lights. He is only perplexed by the partial knowledge, which is all that his utmost efforts enable him to obtain. The comparative ages of the dead will indicate to him not only the amount of health, but the comparative force of various species of disease; and from the character of its diseases, and the amount of its health, much of the moral state of a people may be safely pronounced upon. The proportion of marriages to births

and deaths is always an indication of the degree of comfort enjoyed, and of the consequent purity of morals; and, therefore, of the degree in which education is present or needed. A large number of children, and a large proportion of marriages, indicate physical and moral welfare, and therefore a comparative prevalence of education. A large number of births, and a small proportion of mariages, indicate the reperse. When these circumstances are taken in connexion with the prevailing occupations of the district to which they relate, the philauthropist has arrived at a sufficient certainty as to the means of education required, and the method in which they are to be applied.—Miss Martineau's "Hout to Observe."

[We add to the above, that England now possesses an

be applied.—Miss Martineau's "How to Coserve."
[We add to the above, that England now possesses admirable system of registration, such as is here poin out. Scotland, however, is still without any natio arrangements on the subject. Parishes possess regist of baptisms, but not of births; registers of proclamatic that we have a subject. of captisms, out not of births; registers of procuminations of marriages, but not of the solemnisation of marriages; registers of burials, but not of deaths. In such a disgracefully loose state of affairs, the statistics of births marriages, deaths, calculations as to public health, and many other matters equally useful, cannot possibly be reade on.

A FEW WEEKS ON THE CONTINENT.

MORAT-LAUSANNE.

I MUST now invite the reader to accompany us in our excursion from Berne to Morat-a place off the usual route of tourists, as the country in this quarter has little to boast of 'in the form of romantic scenery, but which I preferred taking to any other on the way to Lausanne, for the purpose of visiting what has for several centuries been one of the chief historical scenes of Switzerland.

Our journey lay in a south-westerly direction from Berne, through a generally well-cultured district, with substantial farm-houses, neatly kept enclosures, and reads as excellent as are to be found in any part of the world. On all sides were evidences of harvest having been gathered into the barns; the clanking sound of the flail, though perhaps not what would have called forth the admiration of our political economists, came at intervals pleasingly on the ear, as an evidence of rural wealth and industry; and on the open slopes, shone upon by a bright morning sun, men, women, and children, were busily preparing the ground for new crops of grain. Early in the forenoon we crossed the Sarine, a large tributary of the Aar, by an old-fashioned wooden bridge, and shortly afterwards entered the canton of Freyburg. An hour later brought us to the ancient little town of Morat, a kind of rude imitation of Berne on a small scale, with arcades beneath the houses. From sundry appearances, however, we were glad to see that the spirit of improvement had reached the place; the gates had een removed, the fosse filled up, and various parts of the old walls, which had done duty in more troublous times, were taken down. Morat stands close upon the eastern margin of a

lake of the same name, the opposite shore of which is a low hill, separating it from the Lake of Neuchatel,

and terminating in a morass on the north. The scenery, comparing it with other parts of the country, is altogether spiritless, and the sole interest is derived from historical associations; for on the unromantic banks of this sheet of water took place the greatest of the martial achievements which contributed to secure Swiss independence. The previous efforts to rid the country of its intruders had been directed principally against the dukes of Austria; on this occasion, the ountaineers were called on to battle with a new and still more audacious foe, Duke Charles of Burgundy, who, on the plea that they were allies of Louis XI. of France, desired to bring them to that kind of subjection to which he had already reduced the rebellious Liegeois. This infamous encroachment on the rights of a people with whom he had no proper concern, was made in the year 1476; and never, in the whole annals of human strife, was an invader so justly punished. The war commenced by an attack on the small fortified town of Grandson, situated near the southern extremity of the Lake of Neuchatel, which having captured, he put its 800 defenders to death, by causing them to be stripped and hung upon the trees of the neighbouring forest. In two days later, was fought the famous battle of Grandson, in which the confederated army of Swiss, by adroitly hemming in

the Burgundians close upon the lake, and attacking them from the lower slopes of the Jura, completely defeated them, with an immense slaughter. Charles

left 50,000 men, and all his valuable equipage, behind him, and fled through the mountains with only a few

personal followers. Arrived at Nozeroy, and writhing under the humiliation of so signal a defeat, he gave

himself up to despair, saw no one, drank deeply in ne almost insane. At length, l ever, he regained his activity, and meditating solely on vengeance, he re-assembled at Lausanne an army of upwards of 40,000 men, with which he advance upon Morat.

It was the scene of the extraordinary exploit which occurred on this occasion, that we had now come hither

The battle-field of Morat lies at the distance of rather more than an English mile south from the town, and we proceeded towards it by the high road to Freyburg, with the wide-expanded waters of the lake on our right, and a fine sloping hill partitioned into well-cultivated fields, and ornamented with trees and cottages, on our left. It was on the face of this now tranquil upland, from its summit to the edge of the lake, that the heat of the conflict took place. With our backs towards the town, and in front the line of country through which Charles's forces were marched forward to their well-merited doom, we could easily picture the details of this celebrated encounter, ich I shall allow the Swiss historian, Zschokke, to give his short and pithy account. Speaking of the defence offered by Morat to the progress of the Burgundians, he observes-"Adrian de Bubenberg, with 600 soldiers, and the inhabitants of the town, m still more obstinate and effectual resistance than had been done by the defenders of Grandson. Whilst the duke thus found himself arrested in his course, the confederates and their friends once more collected their forces. Morat was by this time in imminent danger. Breaches had been made in the walls and towers, and the rampart had given way; but courage of Bubenberg, and the heroes com him, remained unshaken, and they held out firmly until they beheld the arrival, from all sides, of the confederates and their allies from Bienne, Alsace, Basil, St Gall, and Schaffhausen. These were the first to come forward. Upon their steps, in spite of the inclement weather and the bad roads, marched in haste the men of Zurich, Thurgovie, Argovie, and Sargans. John Waldmann, leader of the Zurichois, arrived at Berne on the eve before the battle, and granted to his jaded troops only a few hours of r At the hour of ten at night, the bugle sounded for the resumption of the march. The city of Berne was illuminated on the occasion, and table es were spread out before every house for the refreshment of the patriot soldiery. The route was taken for Morat amid the darkness of night, and in the face of a storm of wind and rain.

The day dawned; it was the 22d of June; the sky was overcast with clouds, and the rain still fell in torrents. The Burgundians displayed their vast lines before the eyes of the Swiss, who numbered scarcely 30,000 combatants. Before giving the signal of attack, John de Hallwyl fell on his knees, with his whole army, to invoke the assistance of the Almighty in this trying moment for their beloved country. While they prayed, the sun broke through the clouds, and, on the instant, the Swiss commander arose: waving his sword aloft, he exclaimed-' Rise, rise, confederated brethren ! God smiles upon our coming victory!' As he spoke, the clang of arms resounded; the attack was made; the battle raged from the heights to the lake. Hallwyl commanded on the left; on the right was engaged the flower of the Swiss army, under the ers of John Waldmann; and Adrian de Bubenberg had the guidance of the troops stationed amid the trees on the shores of the lake. Hallwyl had to sustain a fearful struggle, and he did sustain it, till he beheld the appearance of the white-haired chief of Lucerne, Gaspard de Herstenstein, on the fising ground behind the enemy. Death now rioted in the ranks of the Burgundians ; in front and in rear they were massacred; thousands battled obstinately, thou-sands fell, and thousands took to flight. The duke, pale and dismayed, seeing that all was lost, fled with a train of scarcely thirty attendants, and reached the banks of Lake Leman. Fifteen thousand of his troops lay on the plain of Morat, in its lake, and in the town of Avench es. A great number, seeking to save themselves, had perished in the waters and neighbouring marshes; the rest were completely dispersed. The tents, provisions, and treasures of the enemy, became the prize of the victors. The dead were threwn into pits amid quick-lime, and earth spread over them."

Some years afterwards, the citizens of Morat formed a collection of the bones of the Burgundians, as a warning to those who might afterwards attempt the

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conquest of Switzerland. Four years later, they erected a monumental chapel, in which also were reassembled many of the bones of the fallen. For three centuries this memorial of Swiss heroism remained entire, and was in existence in 1797, when Bonaparte, after the treaty of Campo-Formio, visited the spot on his way to the congress of Rastadt. "Young captain," said he to a Swiss officer who accompanied him, "be assured that if we ever fight in this spot, we will not take the lake in our retreat." In the following year, during the French invasion of Switzerland, a Burgundian regiment destroyed the monument, and threw the bones into the lake, whence some of them were ejected upon the shores, during every successive storm. From this time, the relics of the slain became a marketable commodity. They were picked up, and carried off to be sold to strangers, or to make handles for knives, for which their whiteness adapted them. In the course of his rambles Lord Byron visited the scene, and carried away what he described as perhaps forming the quarter of a hero; observing, as an apology, that if he had not himself committed this species of sacrilege, the next comer would most likely have been guilty of it, and for a more sordid purpose: the bones he designed to preserve with the most religious care.

The overturned monument was at first replaced by a tree of Liberty; to this succeeded a linden tree, surrounded by a railing. But on the 9th of January, 1821, the cantonal authorities of Freyburg voted a sum of 6000 francs for the erection of an obelisk on the spot. This was duly accomplished, and now a remarkably handsome obelisk of sandatone, apparently about forty feet in height, is seen standing on an open gravelled space, adjoining the public road, and overlooking the large expanse of lake. On one of its sides is an inscription in Latin, expressing that—"The Republic of Freyburg signalises the victory of the 22d of June, 1476, gained by the united efforts of their ancestors, by this new monument, erected in the year 182

"The Republic of Freyburg signalises the victory of the 22d of June, 1476, gained by the united efforts of their ancestors, by this new monument, erected in the year 1822."

I am afraid I have detained the reader with these scraps of old-world history; but surely one may well be excused for pausing for a moment over a scene so intimately associated with the independence of a brave and free people. Morat was the Bannockburn of Switzerland, for the confederated cantons now assumed a political standing from which they were never afterwards driven—although, it may be remarked, they did not rid themselves of the German emperors till 1499, or wrench Vaud and Geneva from the dukes of Savoy till 1536. In the meanwhile, what became of Charles the Bold of Burgundy! His sun set on the plain of Morat. In about half a year after, in an equally futile attempt on Lorraine, he perished ingloriously at the battle of Nancy (January 7, 1477), when his forces were utterly destroyed; his body was found a few days afterwards, immersed among ice and mud in a ditch, and so disfigured that he was only recognised by the length of his beard and nails, which he had allowed to grow since the period of his defeat at Morat. The page of history presents few more striking instances of the retributive punishment of inordinate pride, ferocity, and ambition.

After having seen what was worthy of observation in this part of the country, there was nothing to detain us, and we proceeded by an afternoon's ride to Neuchatel—a fine old town in the French style, situated at the base of the vine-clad Jura, and close upon the lake of the same name. As it was afterwards our fortune to take this city, and the district of country beyond it among the mountains, in our journey into France, I shall here postpone any notice of them, and proceed with the reader on the way to Lausanne. The first part of the journey we performed on board a small steam-boat, which, in from three to four hours, carried us to the farther extremity of the lake at Yverdun—a substantial

which Mont Blane, with its serrated snowy scalp, rests in solemn majesty. From Villeneuve on the east—where the waters of the Rhone have cleft for themselves a passage through a rampart of huge rocky eminences, and found room to expand in the bosom of the still lake in front—as far as to the neighbourhood of Geneva on the west, a compass of forty miles, where the lake has similarly forced an outlet through the intercepting flanks of the Jura, this fascinating landscape is spread out before us. The first view of the shores of Lake Leman, combining as they do, to an almost unexampled degree, the beautiful with the sublime, and associated with many highly interesting recollections, is felt as a realisation of many of those pleasing dreams and fancies with which hope is always kindly alluring us onward through life, but which sober judgment as frequently tells us must ever retain, for the most part, their native insubstantiality. Once seen, it is a thing not easily to be forgotten; and to those who treasure such remembrances, it will mark an era in existence.

sober judgment as frequently tells us must ever retain, for the most part, their native insubstantiality. Once seen, it is a thing not easily to be forgotten; and to those who treasure such remembrances, it will mark an era in existence.

Our party reached Lausanne at noon, somewhat glad to get off the dusty roads, and to seek sheiter from the overpowering heat. But no sooner had we fixed our quarters at that prince of hotels, the Hotel Gibbon*—which I take upon me to pronounce unmatched for every excellent quality by any other house in Christendom—than there was no rest till we had seen all the outs and ins of the town—its beautiful promenades and very ancient eatheral—and, in particular, the house in which Mr Gibbon had resided during his stay at Lausanne, and, as is well known, wrote his "Decline and Fall of the Roman Empire." This edifice is almost close to the hotel which has taken the distinguished author's name; and to understand its site, we must first take a glance at the general character of the place.

Lausanne, the capital of Vaud, occupies an awkward situation on the summits and declivities of two or three broad knolls, the southern face of which forms a descending slope of at least a mile to the village of Ouchy, on the margin of the lake. The streets are irregular, though beginning to be improved in various ways; the greatest of all the improvements going forward being the erection of a splendid bridge of twenty-two arches, designed to connect the main street with the open high ground on the north—that by which we had entered from Yverdun. This great work, which is to cost the canton 500,000 francs—not bad for a small republic, the size of an English county—and is forming of hard blue stone, imported from the opposite shores of Savoy, will be of incalculable service as an approach; for hitherto the only entrance to the town, in this direction, has been by a street of such excessive steepness that the diligence does not attempt to face it. When finished, the new thoroughfare will run up straight t

a stair and winding passage, opening upon the berceau walk which formed the author's favourite promenade during the composition of his great work.

No garden scene can be conceived more delicious than this little spot—a trimly-kept walk, shaded with green acacias in full leaf; borders of flowers and orange-trees, enriching the air with their perfume; the walls of the house and terrace beyond covered with vines and fig-trees, each with its clusters of fruit; above all, glimpses through the bushes of the long descending slope towards the lake—disclosing a universal vine-garden, while in the distance the scene is closed with the chain of the Savoy peaks. Such was the spot occupied for several years by Gibbon, while writing his immortal production; and here, in an arbour at the extremity of the walk, which has unfortunately been removed in the progress of adjoining improvements, did he finish his undertaking. His own words will doubtless recur to remembrance: "It was on the day, or rather the night, of the 27th of June 1787, between the hours of eleven and twelve, that I wrote the last line of the last page in a summer-house in my garden. After laying down my pen, I took several turns in a berceau, or covered walk of acacias, which commands a prospect of the country, the lake, and the mountains. The air was temperate, the sky serene, the silver orb of the moon was reflected from the waves, and all nature was silent."

Lausanne may be said to form the centre point in a district whose fate it has been to afford a residence to many individuals distinguished for their literary abili-

ties, and acquirements in various branches of learning. On the west, not to speak of Geneva, lies Ferney, leng the seat of Voltaire, and near it Coppet, the residence of Necker and his illustrious daughter Madame de Stael; while on the east is Clarens, the abode of Rousseau. Lord Byron, whose passionate lines on Lake Leman, in calm and storm, require no repetition, resided at different places on its shores; among others at Diodati, near Geneva, where he wrote his "Manfred," and the third canto of "Childe Harold;" and Ouchy, and the third canto of "Childe Harold;" and Ouchy, below Lausanne, where he composed his "Prisoner of Chillon." Not the least remarkable circumstance in the history of Lake Leman is, that all its numerous admirers—Byron, when at Diodati, excepted—have taken up their abode on its northern or Swiss side. At the côté roti, or side offered to the full influence of the summer sun, the northern shore is unquestionably At the côté roti, or side offered to the full influence of the summer sun, the northern shore is unquestionably not only the most genial but every way the most beautiful. There is, however, another cause of preference. It has long enjoyed all the benefits of civil and religious liberty, whereas the territory on the south is under one of the most thorough despotisms in Europe—that of the Sardinian monarchy. A residence of a few days on the lake enabled us to observe the striking difference between these two conditions.

and religious liberty, whereas the territory on the south is under one of the most thorough despotisms in Europe—that of the Sardinian monarchy. A residence of a few days on the lake enabled us to observe the striking difference between these two conditions. Looking out from the heights of Lausanne, you see all along the Swiss side incontestible evidences of civilisation, comfort, and industry—ports with their small sailing craft, and steamers darting from point to point, leaving and taking up passengers. On the opposite shore all seems duli, antiquated, and unimproved; the bulk of the country bleak and desolate, while not a single visit is permitted by steam-vessels at any of the small lake-side towns. A more close and vivid contrast between a country managed by its own people, and one under the government of others, could scarcely be more affectingly exhibited.

Perhaps no part of Europe has undergone so many political changes as the modern canton of Pays de Vaud, stretching along the northern shore of Lake Leman. One after the other, it has been possessed and domineered over by Romans, Franks, Burgundians, the emperors of Germany, the dukes of Zahringen, the counts of Kyburg, the barons of Vaud, and dukes of Savoy, and bishops of Lausanne.* In 1536, the Bernese, by force of arms, as already mentioned, wrested the district from the reigning dukes of Savoy—of whose cruelties we shall have something to say when we reach Chillon—and henceforth it became a part of the canton of Berne till 1798, when it was rendered independent as a part of the Helvetian republic. In 1803, by the act of mediation of Napoleon, this republic was dissolved, and Vaud now became a distinct canton in the Swiss confederacy. This lasted till 1814, when it lost partly its democratic constitution, and fell under the jurisdiction of certain privileged orders. In 1830, this preposterous arrangement was overturned by a revolution; and the conton, in its independent state, became what it now is—a free democracy like that of Berne, Zurich, and t

*According to local historians, the bishops of Lausanne were a poworful set of prince-prelates, whose spiritual influence was not limited to the human species, but extended also over the tribes of lower animals. In 1479, the country around Lausanne was, it appears, infested by a host of insects, which ravaged the roots of the plants, everywhere causing serious inconvenience and loss. This unforeseen and alarming pest was reported by Frikart, the Chancellor of Berne, to the Bishop of Lausanne, counselling his lordship to have the intruders summoned before his tribunal, and there be made to answer for their conduct. The suggestion appeared reasonable; and to give the animals every chance of justice, an advocate of infamous character, recently deceased, was appointed to conduct their case. The day set apart for the trial arrived, and the suit came to a hearing; but as the advocate for the defendants did not make his appearance, the insects were roonounced contumacious, and judgment went against them. "Les insects furent excommunicited, proscribed in the name of the Holy Trinity, and condemned to banishment from every part of the diocese of Lausanne.' This order, it is mentioned, still exists in its original form. The historians of Berne, who have transmitted the fact, do not seem to have considered it any way remarkable; and only observe that, according to custom, the sentence had the effect of remedying the will:

^{*} The French, who systematically misspell and mispronounce foreign proper names, call this the Hotel Hi-bon. A stranger at first has a difficulty in knowing who they mean by Hi-bon.

nglish chapel at Lausanne being one of the tangible idences of this freedom of opinion; and, in short, so country seems to be pursuing a fair course of stional and individual prosperity.

WORDSWORTH'S NEW POEMS.

A NEW volume from the pen of William Wordsworth is a gift which the public will now receive with general gratitude. The meed of popular favour was for a time withheld from the poet of Rydal, and chiefly in con-acquence of his own unfortunate promulgation of cer-tain laws of literary composition, to which the world at large could not give their assent; but it was ultimately found, that though he observed these rules in a few instances, as in the case of the "Idiot Boy," "Harry Blake and Goody Gill," and some other short pieces, the majority of his poems were modelled after the loftiest exemplars of our language, and had few parallels in it, whether as regarded dignity of diction or elevation of thought. The effect of the mistake under which the public laboured with respect to Mr Wordsworth, is partly shown by the present volume which contains many pieces composed long ago, and which the writer has only at the eleventh hour been encouraged to give to the public. Among other productions, we find here the "Tragedy of the Bordorers," written in 1795-6, and respecting which great curiosity has been felt by the poet's admirers, its existence having been very generally known for many by-past years.

As the volume only adds to the amount of Mr Wordsworth's works, and gives no novelty in any other respect, it is scarcely necessary, except for form's sake, to present any specimens of its contents. We are tempted, however, to transfer to our columns one or two pieces or passages which have fallen upon our own feelings with an effect peculiarly Wordsworthian, and which we have no doubt will give equal pleasure to our readers. One of these is the conclusion of a poem entitled "Musings near Aquapendente," written poem entitled " Musing during a tour in Italy.

mentitled "Musings near Aquapendente," writing a tour in Italy.

"Time flows—nor winds, Nor stagnates, nor precipitates his course, But many a benefit borne upon his breast. For human-kind sinks out of sight, is gone, No one knows how; nor seldom is put forth. An angry arm that sanches good away, Never perhaps to respect. The Stream Has to our generation brought, and brings, Innumerable gains; yet we, who now Walk in the light of day, pertain full surely To a chill'd age, most pitiably shut out From that which is and actuates, by forms, Abstractions, and by lifeless fact to fact Minusly linked with diligence uninspired, Unreotified, unguided, unsustained, Py godlike insight. To this fate is doom'd Science, wide-spread and spreading still as be Her conquests, in the world of some made known. So with the internal mind it fares; and so With morals, trusting, in contempt or fear Of vital principle's controlling law, To her purblind guide Expediency; and so Saffers religious faith. Elate with view Of what is won, we overlook or scorn The best that should keep pace with it, and must, Else more and more the general mind will droop. Even as if bent on perishing. There lives No faculty within us which the Soul Can spare, and humblest carthly Weal demands, For dignity not placed beyond her reach, Zealous co-operation of all means Given or acquired, to mise us from the mire, And liberate our hearts from low pursuits. By grose Utilities ensisted, we need More of enabeling impulse from the pset, If to the future aught of good must come Sounder, and therefore holier, than the ends Which, in the giddiness of a single pear? Flowing of time and place, and pala to both Due homage; nor shall fruitlessly have striven, My love of time and place, and pald to both Due homage; nor shall fruitlessly have striven, My love of the and diseaser's, as our own, may shed Influence, at least among a scatter'd few, To soberness of mind and peace of heart Friendly; as here to my repose hath been This Sowering broom's dear neighbourhood, the ligh

The following upon the flower called Love lies Bleed-g, seems to us exquisite:—

of his death-wound, when he from innocen The gentlest breath of resignation drew; While Vennas, in a passion of despair, Rent, weeping over him, her golden hair, Spangled with drops of that celestial shower She suffer'd, as immortals sometimes do; But pangs more lasting far that lover knew Who first, weigh'd down by scorn, in some Did press this semblance of unpitied smart Into the service of his constant heart; His own dejection, downcast flower?

The following lines to a Redbreast, written during sickness, are said to be from the pen of a female relative, and remind us of the simple and touching style of the poet:—

Stay, little cheerful robin! stay,
And at my casement sing,
Though it should prove a farewell lay,
And this our parting spring.
Though I, alas! may ne'er enjoy
The promise in thy song;
A charm that thought cannot destroy
Doth to thy strain belong.
Methinks that in my dying hour
Thy song would still be dear,
And with a more than earthly power
My passing spirit cheer.
Then, little bird, this boon confer:
Come, and my requiem sing;
Nor fail to be the barbinger
Of everlasting spring. " Stay, little cheerful robin! stay. not destroy.

As for the tragedy of the Borderers, it will probably add little to the author's reputation. Though containing fine thoughts scattered here and there, it is unfitted for exhibition on the stage, and indeed, as the author admits, was never intended for production

THE EARLY DAYS OF NAPOLEON.

THE EARLY DAYS OF NAPOLEON.

THERE hangs over the boyish days of Napoleon Bonaparte a mystery somewhat similar to that which rests on the opening years of Shakspeare. In the case of the latter, we are totally at a loss to comprehend by what species of training that wonderful mind was developed, and whence was derived that boundless knowledge of human nature, and of the phenomena of the universe, which his writings display. With the like feelings of uncertainty do we muse upon the early life of Napoleon, wondering in what manner that prodigious amount of intelligence was accumulated, which gave him such a sway in after-days over his fellow-men, and rendered him never for one instant at a loss, amid the most varied and trying circumstances in which man could be called upon to act. Bonaparte appeared to burst at once upon the world with the experience of fifty lives concentrated in his young mind, ready to take up at will the parts of warrior, ruler, legislator, or diplomatist, and to cope with and foil those who had grown grey in studying the duties of but one or other of these difficult characters. These circumstances throw a peculiar interest over the youth of Napoleon. Fortunately, during the period of the consulate, he gave directions for the preservation of various letters and papers connected with his early history, and from a notice of these, lately published in France," we shall proceed to draw several particulars.

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history, and from a notice of these, lately published in France, we shall proceed to draw several particulars.

Paoli, the Corsican patriot, seems to have been a material instrument in moulding the character of the young Napoleon. Genoa had assumed the right of selling Corsica to France, in the time of Louis XV., and that monarch sent an army to take possession of it. The Corsicans resisted, under the guidance of Paoli. Charles Bonaparte was a warm partisan of that chief; and, in the campaign of 1769, which gave France the accondancy, was personally in the field with his wife Letitia, who, at that very time, in the midst of peril and alarm, gave birth to Napoleon. During the childhood of the latter, Paoli was constantly in the mouths of those around him, and he grew up with a deep admiration of the character of the exiled general, then living in England. When the French Revolution broke out, Paoli was recalled, and Napoleon became his close personal friend. The old general had penetration enough to discern the remarkable character of the youth. "You are one of Plutarch's men," he used to say to him—a compliment of no slight kind. It has been often asserted, that Napoleon never acted under the impulse of feeling but was always guided by motives of self-interest and cold calculation. Not so was it when Paoli, having incurred the suspicion of the French Convention for his denunciations of the execution of Louis XVI., was summoned to appear and answer for himself in Paris. Napoleon, who had then received a commission in the French service in Corsics, had the generous boldness to write to the Convention in his old friend's defence. "One of your decrees," says the letter, "has deeply afflicted the citizens of Ajaccio; it is that which orders an old man of seventy, loaded with infirmities, to drag himself to your bar, charged, through misunderstanding, as corrupt and ambitious. Representatives! when the French were governed by a corrupt court, and placed credence neither in virtue nor patriotism, then might it have be

as the patriarch of freedom, the precursor of your republic; so will posterity think, and so do the people now believe. We owe to him all, even the happiness of being a portion of the French republic. He ever enjoys our confidence. Ropeal your decree, and render us happy." Napoleon's bold appeal was not listened to, and Paoli was compelled to look for safety to Eng-land.

Another person who exercised much influence over Napoleon in his youth, was Father Dupuy, sub-principal of the school of Brienne. As became common in the case of Corsian Amilie of respectability, after the island was incorporated with France, Napoleon was sent to the college of Autum at the age of nine, and afterwards to the school of Brienne. Bourienne mentions, in his memoirs of Bonaparte, that the Emperor never could spell properly; but he does not tell the reason. The fact was, that Napoleon could not speak a word of French when he came to the school first mentioned. He picked up the tongue through his intercourse with others, but nareer was taught it grammatically. He was engaged in learning the classies, when he ought to have been set to the French lauguage by his teachers. His execasively careless penmanship in later days was supposed to by partly affected, in order tonic altachine, but not thoroughly removable. One of the early case of the could to correct the style and spalling, but the evil was yet for the could be correct the style and spalling, but the evil was yet Napoleon was abount the seasy from his pen, did all he could to correct the style and spalling, but the evil was yet Napoleon was a History of Corsics, which the season of the style of the services of

[&]quot;You-call it, 'Love lies Biseding'—so you may, Though the red flower, not prostrate, only drod As we have seen it here from day to day, From month to month, life passing not away: A flower how rich in sadness! Even thus stor (sentimet by Grecian sculptor's marvellous pour Thus leans, with hanging brow and body bent Earthward in ulmom plaining languishment, The dying Gladistor. So, sad flower! "The Pancy quides me, willing to be led, Though by a signed rhresh!

before action. The following are his thoughts on the subject of self-destruction. "Ever alone in the midst of men, I return to dream with myself, and to give myself up to all the vivacity of my melancholy. To what point is it now directed? To the side of death. Yet in the morning of my days, I may hope to live a long time. I have been absent seven years from my country. What pleasure shall I not taste in revisiting, in four months, my relatives and compatriots? Filled with the tender sensations which the remembrance of my youthful pleasures inspires, may I not conclude that my happiness will be complete? And what madness, then, urges me to wish for my destruction? Doubtless, I may say, what have I to do in this world? Since I must die, is it not as well to end my life at once? If I had passed through sixty years, I should respect the prejudices of my contemporaries, and wait patiently till nature had completed her course; but since I begin to experience misfortunes, since nothing gives me pleasure, why should I go on enduring unprosperous days? How far have men wandered from nature? How cowardly, base, and servile are they! What spectacle shall I behold in my native country? My compatriots, loaded with chains, tremblingly kiss the hand which crushes them. They are no more those brave Corsicans, whom a hero animated with his virtues; no more are they enemies of tyranny, luxury, sycophancy. Proud, and full of a noble consciousness of worth, a Corsican once lived happy. If he had employed the day on public affairs, his evenings passed away in the sweet society of a loving and beloved spouse; reason and enthusiasm effaced all the fatigues of the day; tender and natural affection rendered his nights comparable to those of the gods. But these happy times have disappeared with liberty, like passing dreams! Frenchmen, not content with having reft from us all that we cherished, ye have also corrupted our manners! The existing spectacle of my country, and my powerlessness to effect a change, form a new reason for quittin The following are his the

home, what aspect shall I assume, what language shall I hold! His country lost, a good citizen ought to die. Had I but one man to destroy, in order to deliver my countrymen, I should turn to the task in one instant, and avenge my country and its violated laws by plunging my steel into the tyrant's bosom. Life is a burden to me, because I enjoy no pleasure, and because all is pain to me; it is a burden because the men with whom I live, and probably shall always live, have manners as widely different from mine as the moon's light differs from that of the sun. I cannot follow the sole mode of life which could make it endurable, and a disgust for all is the consequence."

This passage affords a remarkable proof of the high-reaching sentiments which, even at the age of seventeen, characterised Napoleon. The death which he meditates is the death of Cato, not of Chatterton. It is not the pressure of penury which disgusts the extraordinary boy with life, but the slavery of his country and the degradation of his species. There is ample evidence existing among his early papers to prove, that he was in his youth a genuine and ardent lover of republican liberty, and that he disliked the French, fixing his whole thoughts on Corsica. As his mind became matured, however, he saw that Corsica was too insignificant in extent, and possessed resources too limited, to permit it to flourish independently amid states so much superior to it in power; and he turned to France, as affording full scope for the development of those great problems in social government which occupied so much of his youthful attention.

Among the thirty-eight bundles of papers consigned by Napoleon to Cardinal Fesch, one curious paper deserves to be briefly referred to. It is a Dialogue on Love, which proves how early his opinions had been formed on this, as on other points. He never was remarkable for sentiment, and, at the commencement of his dialogue, he speaks in this condemnatory manner of the feeling of affection between the secse. "I believe it to be h

serve them. Let it be no more said that chance ele-vated Napoleon. When, after seven years of retire-ment, he appeared for the first time on the stage of the world, he contained already all the germs of his future greatness. Nothing was fortuitous in his case. He struggled to rise, and left no occasion unused to make himself known. He himself, therefore, must no more be permitted to ascribe his elevation to fata-lity." em. Let it be no m

lity."
To these truths nothing can be added. Never was it more fully shown than in the case of Napoleon—that industry is the better part of genius.

OSIER-WEAVING.

OSIER-WEAVING.

Basket-making or osier-weaving is an art which seems to us to have a tendency, somehow or another, to call up pleasant reflections whenever the mind is directed to it. The cause of this perhaps is, that the art is a peculiarly neat and cleanly one; and partly, perhaps, because it affords occupation to so many of our poor fellow-creatures who have scarcely any other resource to turn to for bread—the infirm, the lame, and the blind. Possibly, moreover, the beautiful story of the Peruvian Basket-Maker, told in almost all reading-books for the young, may have an early influence in impressing the mind with a pleasing sense of the usefulness of this little art. Speaking for ourselves, all three causes, we believe, have had their effect; and if others have felt any similar impressions, some account of the basket-weaving process may not be unacceptable.

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The interweaving of twigs is an operation which suggests itself so naturally to man, that we cannot wonder at finding it practised by him in his rudest condition. The very birds teach it to him, for among them we have some clever twig-weavers. Plaiting of rushes comes more readily to the hands of boys than almost any other manual task, and the very simplest of all baskets are actually formed of this material. Some of the Van Diemen's Land tribes make (or rather did make, for the last native of that island was hanged lately) baskets of strong rushes by tying the ends merely, and keeping the middle parts swelled out by a cross band or two. These tribes stood very low in the scale of civilisation. Some other Australasians, a little more civilised, have been observed to make baskets of leaves so dexterously intertwined as to hold liquids without spilling. Of all the rude nations, in truth, with whom we have become acquainted, not one is ignorant of this art; and there is every reason to conclude that past times were in this respect like the present. Our own ancestors,

"While yet our England was a wolfish den."

" While yet our England was a wolfish den,

every reason to conclude that past times were in this respect like the present. Our own ancestors,

"While yet our England was a wolfish den," were famous for their skill in basket-making, as Martial tells us that their manufactures were brought to Rome in great quantities, and, like our oysters, sold there for extravagant prices.

In days and places where nailing, dove-tailing, jointing, and hingsing were arts unknown, plaiting was the most natural of all resources and substitutes. Hence not only utensils such as baskets, but houses or huts, scallops, shields, and sword-hilts, and the like articles, were all formed from the same material, being rendered serviceable by coverings of hides, another ready resort in rude regions. At the present day, in some parts of the east, half the necessary implements of life are made of wicker-work, the bamboo, from its strength and elasticity, giving peculiar facilities for such manufactures. Boats of hide and bamboo can be made by half-a-dozen men in as many hours, when it is necessary to cross a river; and these articles can be constructed of such strength, that thirty men, and even cattle, can be transported in them from bank to bank. To attend, however, to basket-making in particular. Osiers or willows are the usual materials employed in this manufacture. The wands are cut by the roots, and if intended for the finer kinds of work, are soaked for a time in water previously to their being peeled. This is done by means of a brake or iron instrument, through which they are drawn. As the natural sap of the wands greatly injures the work, they are always dried in the sun, whether peeled or unpeeled, before use. One of the circumstances that renders osierwork a ready resource to persons incapacitated from engaging in other work, is the very small number of implements required for the craft. A brake, such as has been mentioned, a knife or two, and a splitter, consisting of two edge-toley laced at right angles, for cleaving the wood longitudinally into one or more splits, are all

the whole bottom be occupied with them. To form the sides, a number of upright rode with sharpened points are forced between the rode of the bottom, are are plaited with them towards the centre. Around these perpendicular ribs other rods are woven in and out alternately, until the sides also are complete. The rim of the baket is chiefly formed by turning down the ends of the upright rods, and plaiting them over one another. Sharp-pointed wands are forced down through the rim, and pinned on each side to form the handle. They are usually plaited together more or less intricately.

It would be a waste of time to describe the mode of making rounded baskets, their construction being so visibly simple. Both the cross ribs and the longitudinal wands pass usually from rim to rim, and are there turned over a strong encircling wand, and fixed by a few plaitings afterwards. Considering the great simplicity of construction of the common willow baskets, and their usefulness in respect to these matters. We have no ill-will whatever to tinkers and gipsies, and admit that no very large sums are requisite to purchase brown baskets for the necessities of a farmer's or cottar's establishment; yet the old maxims are good ones, which recommend people never to look to others for a sorvice which they can do for themselves, and to take care of the small aums, as the large ones will then look after themselves. Therefore, seeing that clumps of willows are nowhere very scarce over old Scotland, we imagine that the long nights might often be spent by the rustic ingle in making the handy articles under notice with greater advantage than in gossipry. The little story of the Peruvian Basket-Maker, which, though an invention, conveys a moral of daily applieability, might teach parents that a species of useful knowledge, despised under certain circumstances, might in others become of paramount importance. In the tale mentioned, we are told that a proud gentleman scorned a poor basket-maker gentleman would have periabed but for his file. But th

in the market, might save them all their draining outlay, and remunerate them much better on the whole. Mr Phillips calculated that good and well-managed willows would give, in ordinary circumstances, an annual profit of above L.18 an acre. Others state the profit lower, or about L.10 or L.12 per acre. Any of these sums, considering the nature of the soil occupied, might well induce people to try the culture of osiers. Mr Phillips conceives the best time for planting to be autumn, and the best time for cutting to be autumn, though it is common to plant in the spring. Shoots only are cut, and the stock left. From 6000 to 12,000 sets are usually planted en an acre of ground. It has just been mentioned that humidity is necessary for willows. They grow even in standing water, but are too soft in such situations, and not well fitted for basket-work.

basket-work.

Upon the whole, it might be worth while for agricultural people to look into this matter, and see if they could not do both themselves and their country good by giving the home market a home supply of an article continually in demand, and for which foreign countries have to be resorted to at present.

MEMORY.

Is a paper read a short time ago by Sir Henry Marsh. Bart., at a meeting of physicians, on the subject of memory, and which afterwards appeared in a newspaper, we find the following intelligent observations, tending to show that memory, like every thing else, is susceptible of cultivation, and must always less or more depend on the proper exercise of the faculties of the mind:—

"Wherever there are traces of meutal manifestation, there the attribute of memory is to be found—variously distributed, but always bearing invariable proportion to the amount and extent of intellectual development. As the instincts of the animal become more numerous, so the reach of memory increases; and if, in our observations of facts, beginning with the lowest, we ascend in the scale of animated nature, we shall discover a gradual augmentation of mind and memory till we arrive at man, who, in the possession of both, stands alone and pre-eminent above every other inhabitant of the earth. It is on the score of those superior faculties, moral and intellectual, by which man is distinguished, that he, amongst animals, is designated the image of his Maker; but how valueless had all these endowments been, had not that of memory been superadded! Of all the mental powers, none arcest so forcibly the attention of all classes of persons as this of which we treat. Its utility in every sphere and condition of life is so palpable, that it cannot pass unobserved. It is also so remarkably affected by disease, so strikingly exhibited in infancy and childhood, so altered in 'character by old age, and displayed in such strong features, though limited in extent, in the warring and predatory life of savage and uncivilised man, and as largely bestowed in some one distinct form upon particular individuals, that it is, above all other mental manifestations, that which never fails to obtrude itself upon the notice of even the unobservant and thoughtiess.

The events and occurrences of childhood are not imprissions farther back than to about two years and a h

impressions. The order of the sequence then is—active faculties, strong impressions, vigorous memory.

I have often thought that, if in children the various powers of memory were closely observed, an index of the mental faculties would thence be derived, most valuable in the conduct of education. Believing, as I do, that many intellectual faculties have each its own proper memory, it follows, as a necessary consequence, that in proportion to the strength and activity of each faculty is the vigour, readiness, and retentiveness of the memory

attached to it. Hence, by carefully studying the memory, and ascertaining by well-conducted experiment where it is vigorous and retentive, and where comparatively defective, we should be materially assisted in arriving at a knowledge of the real condition of the mental faculties of the individual whom we undertake to educate.

In this our sublunary state of existence, mind and matter are so inseparably united, that the one cannot manifest it is functions without the other. The brain is the mental instrument of the mind. The human brain, in number and depth of convolutions, in the proportionate quantity of grey or cineritious matter, in size, compared with the other portions of the nervous system, in development of parts posteriorly, superiorly, and anteriorly, exceeds that of all other animals. If the brain be deranged in function, or diseased in structure, the memorial faculties suffer. The brain sympathises with remote parts, and with the digestive organs in particular; we all know and feel to what an extent our reasoning powers and memory are influenced by the state of the stomach. Often in my boyhood, and even subsequently, I have endeavoured to repeat at night words or propositions which I was anxious to imprint on the memory, and repeat correctly. At night I could perform my task but very imperfectly; on awaking in the morning, and repeating the effort, not one word was forgotten. Sympathy with remote parts—high mental excitements and emotions, such as grief, intense pleasure, intense application—various poisonous substances, such as opium, alcohol, disease, injury—all these, by disturbing the functions of the brain, derange variously, and to a greater or less extent, the mental manifestations."

We add the single observation, that young persons who feel deficient in memory, may rest assured that the defect is caused less by inferior mental capacity, than want of application at right times and on right objects. The avoidance of trifling pursuits and undue gratifications of the senses, at the same time dir

EXTREME OLD AGE.

EXTREME OLD AGE.

We pray in the Litany to be delivered from sudden death. Any death is to be deprecated which should find us unprepared; but, as a temporal calamity, with more reason might we pray to be spared from the misery of an infirm old age. It was once my fortune to see a frightful instance of extreme longevity—a woman who was nearly in her hundredth year. Her sight was greatly decayed, though not lost; it was very difficult to make her hear, and not easy then to make her understand what was said, though, when her torpid intellect was awakened, she was legally of sane mind. She was unable to walk, or to assist herself in any way. Her neck hung in such wrinkles, that it might almost be likened to a turkey's; and the skin of her face and of her arms was cleft like the bark of an oak, as rough, and almost of as dark a colour. In this condition, without any apparent suffering, she passed her time in a state between sleeping and waking, fortunate that she could thus beguile the wearisomeness of such an existence. Instances of this kind are much rarer in Europe than in tropical climates. Negresses in the West Indics sometimes attain an age which is seldom ascertained, because it is far beyond living memory. They outlive all voluntary power, and their descendants of the third or fourth generation carry them out of their cabins into the open air, and lay them, like loga, as the season may require, in the sunshine or in the shade. Methiuks, if Miceenas had seen such an object, he would have composed a palinode to those verses in which he has perpetuated his most pitiable love for life. A woman in New Hampshire, North America, had reached the miserable age of 102, when, one day, as some people were visiting her, the bell tolled for a funeral; she burst into tears, and said, "Oh, when will the bell toll for me! It seems as if it never would toll for me! I am afraid that I shall never die!" This reminds me that I have either read or heard an affecting story of a poor old woman in England—very old, and very poor—who

EFFECTS OF FOOD ON THE FORM AND CHARACTER OF QUADRUPEDS.

QUADRUTEDS.

Food influences all the external characters of quadrupeds. Without adverting to the different appearance of an ill-fed beast and one which has an abundant supply, we may remark, that the form of the young animal that suffers a deprivation either in the quantity or quality of its food, never becomes perfectly developed either in its bulk or proportions. The integuments of such a one never present the gloss of health, neither is the constitution at large often free from disease; internal congestions take place, and the mesenteric glands frequently become schirrous. On the contrary, in proportion as the supply within prudent limits is liberal, so is the growth extended, and the form reaches to the standard of the parent. It often also exceeds the parent stock, from the excess of nutritive stimulus applied; and thus horses, oxen, and sheep, brought up in low marshy lands, where the herbage is fuxuriant, attain a monstrous size. Horses, in particular, when bred and pastured in the rich flat

lands of Lincolnshire, become expanded in bulk, and it is from such sources that our carriage and heavy troop horses are supplied. To what a degree of monstrosity may not our bacon hogs be fed; and our prize-exen exhibit the extraordinary powers of food, when forced on an animal, by increasing the supply and restraing the expenditure. It is from our artificial mode of feeding cattle that our markets are now furnished with veal all the year round, and lamb is so common some months before it appeared at the tables of our forefathers.—Encyclopadia of Rural Sports.

ENGLISH AND IRISH BEGGARS.

You may journey many a mile in England, and the people you will meet are in their manner and deportment so much alike, that they appear, if not members of one family, to have been all educated in the same school. It is otherwise in Ireland; everywhere there is some national characteristic, the ramifications of which are various and numerous. The English pauper is at once bowed down by misery, and murmurs and complains under its endurance from first to last. The Irish beggar wrestles with distress; he can exist upon so little food as to seem almost able to live without it; but he cannot do without his jest; there are moments when the heart beats lightly even in his starving bosom. The poverty of the English except at stated times, is sullen; the poverty of the English is garrulous: the Englishman takes relief as a right; the Irishman accepts it as a boon. You may aid half a dozen English paupers without receiving thanks; you cannot relieve an Irish beggar without being paid in blessings.—

BEACONS OF THE OLD SCHOOL.

DEACONS OF THE OLD SCHOOL.

In the days of Bailie Nicol Jarvic's father, the office of deacon [chairman of a corporation of tradesmen] was esteemed no mean distinction. Two worthy incumbents, who fretted their little hour upon a stage not far from the banks of the Ayr, happened to be invested with the above-named dignity on the same day. The more youthful of the two flew home to tell his young wife what an important prop of the civic edifice he had been allowed to become; and searching the "but and ben" in vain, ran out to the byre, where, meeting the cow, he could no longer contain his joy, but, in the fullness of his heart, clasped her round the neck, and it is even said, kissed her, exclaiming, "Oh, crummic, cruming, ye're nae langer a common cow—ye're the deacon'z cow?" The elder civic dignitary was a sedate pious person, and felt rather "blate" in showing to his wife that he was uplifted above this world's honours. As he thought, however, it was too good a piece of news to allow her to remain any time ignorant of, he lifted the latch of his own door, and stretching his head inwards, "Nelly!" said he, in a voice that made Nelly all ears and eyes, "gif ony body comes spierin' for the deacon, I'm just owre the gate at John Tamson's!"—Ayr Advertiser.

WHAT IS A GENTLEMAN?

By the appellation of a gentleman, it is not meant to draw a line that would be invidious between high and low, rank and subordination, riches and poverty. The distinction is in the mind. Whoever is open, loyal, and true—whoever is of humane and affable demeanour—whoever is honourable in himself, and in his judgment of others, and requires no law but his word to make him fulfil an engagement, such a man is a gentleman, and such a man may be found among the tillers of the earth. High birth and distinction, however, for the most part, ensure the high sentiment which is denied to poverty and lower professions. It is hence, and hence only, that the great claim their superiority; and hence what has been so beautifully said of honour, the law of kings, is no more than true. It aids and strengthens virtue where it meets her, and imitates her actions where she is not.—Book of Thought.

MAKING A MYSTERY OF NOTHING.

Making a Mystery of Nothing.

There are minds so habituated to intrigue and mystery in themselves, and so prone to expect it from others, that they will never accept of a plain reason for a plain fact, if the possible to devise causes for it that are obscure, farfetched, and usually not worth the carriage. Like the miser of Berkshire, who would ruin a good horse to escape a turnpike, so these gentlemen ride their high-bred theories to death, in order to come at truth, through byepaths, lanes, and alleys; while she herself is jogging quietly along upon the high and beaten road of common sense. The consequence is, that those who take this mode of arriving at truth, are sometimes before her, and sometimes behind her, but very seldom with her. Thus, the great statesman who relates the conspiracy against Doria, pauses to deliberate upon, and minutely to scrutinise into divers and sundry errors committed, and opportunities neglected, whereby he would wish to account for the total failure of that spirited enterprise. But the plain fact was, that the scheme had been so well planned and digested, that it was victorious in every point of its operation, both on the sea and on the shore, in the harbour of Genoa no less than in the city, until that most unlucky accident befell the Count de Fiesque, who was the very life and soul of the conspiracy. In stepping from one galley to another, the plank on which he stood upset, and he fell into the sea. His armour happened to be very heavy, the night to be very dark, the water to be very deep, and the bottom to be very muddy. And it is another plain fact, that water, in all such cases, happens to make no distinction whatever between a conqueror and a cut.—Lacon.

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